

2012 Western Regional Red/Specialty Trial

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Table 1. Western Regional Red/Specialty Potato Variety Trial - Locations, Cooperators, and Cultural Information

Locations	Cooperators	Trial	Irrigation	Fertilizer	Planting	Vine Kill	Vine Kill	Harvest	Pesticides Applied		
				N-P-K-S (lb/A)	Date	Date	Method	Date	Herbicides	Insecticides	Fungicides
Tulelake California (TUL)*	R. Wilson D. Kirby	Late	Sprinkler	199-73-16-31S	5/17/2012	9/14/2012	Reglone	10/11/2012	Matrix	Admire Pro	Moncut Bravo Weather Stick Manzate
San Luis Valley Colorado (SLV)	D. Holm, C. Gray	Late	Pivot	120-60-40-25-2.5	5/16/2012	8/31/2012	Sulfuric Acid	9/24/2012	Matrix SG Eptam 7E	Fulfill	Quadris Endura
Aberdeen Idaho (AB)	J. Stark, R. Novy, J. Whitworth, P. Bain, M. Chappell	Early	Sprinkler	190-280-300	5/3/2012	8/16/2012	Mechanical	9/5/2012	Outlook Prowl IH2O Metribuzin	Admire Pro	Pennco Zeb 75DF Echo
Klamath Falls Oregon (KLM)*	B. Charlton,	Late	Sprinkler	193-116-250-132	5/24/2012	9/10/2012	Reglone	10/17/2011	Prowl Matrix	Admire Movento Asana Endigo Fulfill Assail Vydate C-LV Telone II	Moncut Ridomil/Bravo Endura
Springlake Texas (SPL)*	J. C. Miller Jr., J. Koym, D. Schuering	Early	Pivot	155-50-50	3/27/2012	7/20/2012	Mechanical	7/24/2012	Roundup Sencor Treflan	Movento Platinum Epimek Fulfill	
Dalhart Texas (DAL)*	J. C. Miller Jr., J. Koym, D. Schuering	Early	Pivot	104-21-21-109	3/24/2011	7/23/2011	Mechanical	7/31/2011	Sencor DF Select Max Matrix	Admire Pro Beleaf Epimek Fulfill Movento Oberon	Quadris Penncozeb Bravo Revus Top Scala SC Luna Tranquility
Mt. Vernon Washington (OTH)	M. Pavek, R. Knowles, Z. Holden	Early	Spinker	200-340-220	4/5/2012	7/17/2012	Mechanical	7/31/2012	Matrix Eptam Prowl H2O		

*California Comment: In general growing conditions were favorable for the 2012 season and yields were normal.

*Texas Comment: These trials were subjected to below average precipitation for the entire growing season, except for the 2nd week in July. High temperatures were 10 degrees higher and low temperatures were 7 degrees higher than normal in April and May.

Table 2. Description of Clones - 2012 Western Regional Red/Specialty Trial

Clone/Variety	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Flesh Color	Entered			DISPO
	Female	Male							By	Seed	Year	
Red/White Flesh												
1 Dk Red Norland	RedKote	ND626	Red-purple	Small	Early	Oval	Dark Red	White	Check	OR	***	
2 Red LaSoda	Triumph	Katahdin	Red-purple	Med	Med	Oval	Lt. Red	White	Check	OR	***	
3 ATTX98453-6R	A93490-1R	A91846-5R	Lavender	Med	Med	Round	Red	White	TX	CO	2	
4 CO00277-2R	Colorado Rose	CO94065-2R	Red-Purple	Medium	Early	Round	Red	White	CO	CO	1	
5 CO00291-5R	CO94019-1R	Rio Colorado	Dk Red-purple	Large	Med-late	Round	Red	White	CO	CO	2	
6 OR04131-2	Mazama	Modoc	Purple	S-medium	Medium	Round	Dark red	White	OR	OR	2	
Red-Purple/Yellow Flesh												
7 ATTX98468-5R/Y	ATD252-5R	A93457-4R	Lavender	Large	Early	Oblong	Red	Yellow	TX	CO	1	
8 CO04021-2R/Y	ATC98509-1R/Y	US147-96R/Y	Light Purple	Large	Medium	Oblong	Red	Yellow	CO	CO	1	
9 COTX01403-4R/Y	VCI015-7R/Y	Winema	Lavender	Small	Early	Oblong	Red	Yellow	TX	CO	2	
Purple/Purple Flesh												
10 Purple Majesty	All Blue	ND2008-2	Blue	Medium	Early	Oval	Purple	Purple	Check	OR	***	
11 POR05PG56-1	POR01PG46-1	POR01PG22-1	Blue-purple	Medium	Early	Blocky	Purple	Purple	OR	OR	2	
Yellow Flesh												
12 Yukon Gold	Norgleam	W5279-4	Pink	Med	Early	Oval	White	Yellow	Check	OR	***	
13 ATX03564-1Y/Y	NDA5507-3YF	Granola	White	Large	Late	Oblong	Yellow	Yellow	TX	CO	1	
14 CO04013-1W/Y	ATC98495-1W/Y	CO97237-5W/Y	Purple	Med-Large	Medium	Round	White	Yellow	CO	CO	1	
15 OR04036-5	POR02PG26-5	AO93487-2R	purple	Small	Early	Blocky	Yellow	Yellow	OR	OR	2	

Table 3. Percent Stand and Stems/Hill

Entry	Clone/Variety	Percent Stand										
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL	WA OTH	Mean	ID AB	TX SPL	WA OTH	Mean
Red/White Flesh												
1	Dk Red Norland	90	97	98	100	89	85	93	3.3	2.5	2.6	2.8
2	Red LaSoda	95	100	97	100	73	100	94	2.3	2.0	2.2	2.2
3	ATTX98453-6R	91	99		93	71	68	84		1.5	2.4	2.0
4	CO00277-2R	84	97	97	79	64	72	82	4.8	2.5	2.2	3.2
5	CO00291-5R	70	96	90	85	57	90	81	2.7	1.6	2.3	2.2
6	OR04131-2	85	94		94	73	67	83		1.6	2.7	2.2
Red-Purple/Yellow Flesh												
7	ATTX98468-5R/Y	95	97	100	100	94	95	97	5.6	2.6	2.4	3.5
8	CO04021-2R/Y	84	86	98	96	95	85	91	4.3	1.6	2.3	2.7
9	COTX01403-4R/Y	94	99	98	100	90	81	94	3.9	2.2	2.5	2.9
Purple/Purple Flesh												
10	Purple Majesty	95	93	98	100		100	97	3.5	2.3	2.8	2.9
11	POR05PG56-1	94	100	98	100		97	98	3.1	1.8	3.0	2.6
Yellow Flesh												
12	Yukon Gold	82	96	98	62	100	81	87	2.5	1.4	2.3	2.1
13	ATX03564-1Y/Y	93	96	98	96	98	75	93	2.5	1.7	2.4	2.2
14	CO04013-1W/Y	94	96	98	100	100	100	98	4.7	2.7	2.6	3.3
15	OR04036-5	92	100	93	72	89	94	90	3.3	1.5	2.5	2.4
Mean		89	96	97	92	84	86	91	4	2	2	3

Table 4. Vine Size and Vine Maturity

Entry Clone/Variety	Vine Size (1-5 large)					Vine Maturity (1-5 late)				
	CO SLV	ID AB	TX SPL	TX DAL	Mean	CO SLV	ID AB	TX SPL	TX DAL	Mean
Red/White Flesh										
1 Dk Red Norland	2.8	2.3	3.0	3.8	3.0	1.3	2.3	2.9	3.4	2.5
2 Red LaSoda	4.0	1.8	4.9	4.6	3.8	3.0	2.9	4.7	3.8	3.6
3 ATTX98453-6R	4.8		3.5	4.2	4.2	3.5		4.1	3.2	3.6
4 CO00277-2R	3.3	2.0	3.6	3.5	3.1	2.5	3.1	3.2	3.6	3.1
5 CO00291-5R	4.5	2.5	4.0	3.2	3.6	3.0	4.4	4.7	5.0	4.3
6 OR04131-2	1.8		3.2	3.8	2.9	1.0		3.0	2.6	2.2
Red-Purple/Yellow Flesh										
7 ATTX98468-5R/Y	3.5	2.3	4.7	4.3	3.7	3.0	3.1	4.7	4.2	3.8
8 CO04021-2R/Y	5.0	3.0	4.2	4.3	4.1	3.5	3.5	4.6	4.3	4.0
9 COTX01403-4R/Y	3	1.5	3.3	4.0	3.0	2	2.8	3.5	3.6	3.0
Purple/Purple Flesh										
10 Purple Majesty	4.0	1.3	3.1		2.8	2.5	2.1	2.7		2.4
11 POR05PG56-1	4.0	2.3	3.1		3.1	1.0	2.1	3.5		2.2
Yellow Flesh										
12 Yukon Gold	3.5	2.0	3.4	4.7	3.4	2.0	2.9	3.6	3.2	2.9
13 ATX03564-1Y/Y	4	2.3	4.5	4.5	3.8	3	2.6	4.7	3.9	3.6
14 CO04013-1W/Y	4	2.0	4.3	4.7	3.8	3	3.3	4.7	4.0	3.7
15 OR04036-5	2.5	1.3	3.2	3.8	2.7	1.3	3.0	3.9	1.9	2.5
Mean	3.7	2.0	3.7	4.1	3.4	2.4	2.9	3.9	3.6	3.2

Table 5. Total Yield

Entry Clone/Variety	Total Yield (cwt/A)							Mean	Rank
	CA TUL	CO SLV	ID AB	OR KLM	TX SPL	TX DAL	WA OTH		
Red/White Flesh									
1 Dk Red Norland	452	390	398	398	155	224	402	346	4
2 Red LaSoda	627	554	494	579	385	376	605	517	1
3 ATTX98453-6R	514	573		416	231	473	361	428	2
4 CO00277-2R	541	348	389	555	178	199	439	378	3
5 CO00291-5R	376	419	257	374	198	202	273	300	5
6 OR04131-2	368	287		310	86	244	250	258	6
Red-Purple/Yellow Flesh									
7 ATTX98468-5R/Y	633	496	577	831	333	320	501	527	1
8 CO04021-2R/Y	646	502	607	720	200	422	334	490	2
9 COTX01403-4R/Y	583	454	565	708	167	430	480	484	3
Purple/Purple Flesh									
10 Purple Majesty	486	360	448	262	172		484	369	1
11 POR05PG56-1	400	315	334	424	174		474	353	2
Yellow Flesh									
12 Yukon Gold	397	352	428	330	171	563	356	371	3
13 ATX03564-1Y/Y	652	411	543	748	400	451	489	528	1
14 CO04013-1W/Y	512	381	500	525	330	481	525	465	2
15 OR04036-5	484	319	387	369	122	353	404	348	4
Mean	511	411	456	503	220	365	425	411	

Table 6. Yield and Percent < 4 oz

Entry	Clone/Variety	Yield < 4 oz (Cwt/A & %)									Percent < 4 oz (Cwt/A & %)								
		CA	CO	ID	OR	TX	TX	WA	Mean	Rank	CA	CO	ID	OR	TX	TX	WA	Mean	Rank
		TUL	SLV	AB	KLM	SPL	DAL	OTH			TUL	SLV	AB	KLM	SPL	DAL	OTH		
Red/White Flesh																			
1	Dk Red Norland	48	73	51	39	73	44	48	54	6	11	19	13	10	48	20	12	19	4
2	Red LaSoda	56	52	41	33	115	64	80	63	5	9	9	8	6	30	18	13	13	6
3	ATTX98453-6R	43	68		31	51	128	111	72	4	8	12		8	22	27	31	18	5
4	CO00277-2R	66	113	125	90	103	79	147	103	2	12	32	32	16	59	40	34	32	3
5	CO00291-5R	71	122	110	51	130	64	121	96	3	19	29	43	14	66	35	44	36	2
6	OR04131-2	159	239		166	71	120	176	155	1	43	83		54	86	50	70	64	1
Red-Purple/Yellow Flesh																			
7	ATTX98468-5R/Y	102	83	137	71	157	163	184	128	1	16	17	24	8	48	51	37	29	1
8	CO04021-2R/Y	61	78	178	41	85	162	101	101	2	10	16	29	6	43	39	30	25	2
9	COTX01403-4R/Y	41	71	45	22	55	63	54	50	3	7	16	8	3	35	15	11	14	3
Purple/Purple Flesh																			
10	Purple Majesty	158	202	267	104	91		212	172	1	33	56	60	40	54		44	48	2
11	POR05PG56-1	260	291	240	313	139		353	266	2	65	92	72	74	79		75	76	1
Yellow Flesh																			
12	Yukon Gold	47	39	93	26	21	61	34	46	4	12	11	22	8	13	11	10	12	4
13	ATX03564-1Y/Y	102	138	145	74	133	194	93	126	2	16	34	27	10	33	43	19	26	3
14	CO04013-1W/Y	240	240	305	228	252	359	375	286	1	47	63	61	43	76	74	71	62	1
15	OR04036-5	158	153	145	61	65	119	106	115	3	33	48	37	16	53	34	26	35	2
Mean		107	131	145	90	103	124	146	122		23	36	33	21	50	35	35	34	

Table 7. Yield and Percent 4-6 oz.

Entry	Clone/Variety	Yield 4-6 oz (Cwt/A)							Percent 4-6 oz (%)								
		CA	ID	OR	TX	TX	WA	Mean	Rank	CA	ID	OR	TX	TX	WA	Mean	Rank
		TUL	AB	KLM	SPL	DAL	OTH			TUL	AB	KLM	SPL	DAL	OTH		
Red/White Flesh																	
1	Dk Red Norland	82	65	60	47	36	74	61	6	18	16	15	30	16	18	19	5
2	Red LaSoda	110	45	96	43	48	108	75	3	18	9	17	11	13	18	14	6
3	ATTX98453-6R	67		48	64	84	122	77	2	13		12	28	18	34	21	3
4	CO00277-2R	89	105	128	20	42	113	83	1	17	27	23	11	20	26	21	4
5	CO00291-5R	99	102	81	37	57	72	74	4	26	40	22	18	28	26	27	1
6	OR04131-2	127		107	3	34	48	64	5	35		35	4	14	19	21	2
Red-Purple/Yellow Flesh																	
7	ATTX98468-5R/Y	145	152	143	93	77	130	123	1	23	26	17	28	24	26	24	1
8	CO04021-2R/Y	115	145	110	71	79	61	97	2	18	24	15	35	19	18	21	2
9	COTX01403-4R/Y	79	82	54	49	49	89	67	3	14	15	8	34	11	18	17	3
Purple/Purple Flesh																	
10	Purple Majesty	137	105	72	29		151	99	1	28	23	27	18		31	26	1
11	POR05PG56-1	97	60	83	27		98	73	2	24	18	19	16		21	19	2
Yellow Flesh																	
12	Yukon Gold	84	101	33	69	70	86	74	4	21	24	10	35	13	24	21	4
13	ATX03564-1Y/Y	137	152	160	144	168	128	148	1	21	28	21	36	37	26	28	2
14	CO04013-1W/Y	160	103	194	23	63	130	112	3	31	21	37	7	13	25	22	3
15	OR04036-5	180	123	85	43	125	130	114	2	37	32	23	36	35	32	32	1
Mean		114	103	97	51	72	103	89		23	23	20	23	20	24	22	

Table 8. Yield and Percent 6-10 oz.

Entry	Clone/Variety	Yield 6-10 oz (Cwt/A)							Percent 6-10 oz (%)								
		CA	ID	OR	TX	TX	WA	Mean	Rank	CA	ID	OR	TX	TX	WA	Mean	Rank
		TUL	AB	KLM	SPL	DAL	OTH			TUL	AB	KLM	SPL	DAL	OTH		
Red/White Flesh																	
1	Dk Red Norland	191	158	142	7	75	37	102	3	42	40	36	4	33	74	38	4
2	Red LaSoda	251	146	129	96	151	36	135	1	40	30	22	25	41	108	44	2
3	ATTX98453-6R	167		81	95	193	28	113	2	33		19	42	41	122	51	1
4	CO00277-2R	186	127	174	23	52	30	99	4	34	33	31	12	27	113	42	3
5	CO00291-5R	144	42	137	2	62	19	68	5	38	16	37	1	30	72	32	5
6	OR04131-2	68		15	0	91	7	36	6	19		5	0	36	48	22	6
Red-Purple/Yellow Flesh																	
7	ATTX98468-5R/Y	223	199	152	55	77	25	122	3	35	34	18	16	23	130	43	1
8	CO04021-2R/Y	264	212	180	24	76	31	131	2	41	35	25	12	18	61	32	3
9	COTX01403-4R/Y	185	205	106	51	215	43	134	1	32	36	15	24	50	89	41	2
Purple/Purple Flesh																	
10	Purple Majesty	122	47	49	44		21	56	1	25	10	19	24		151	46	1
11	POR05PG56-1	33	25	5	7		3	14	2	8	7	1	4		98	24	2
Yellow Flesh																	
12	Yukon Gold	148	144	47	53	229	40	110	2	37	34	14	34	41	86	41	1
13	ATX03564-1Y/Y	242	150	127	78	72	41	118	1	37	28	17	20	16	128	41	2
14	CO04013-1W/Y	96	60	55	13	22	3	41	4	19	12	10	4	4	130	30	4
15	OR04036-5	130	97	102	4	102	37	79	3	27	25	28	3	29	130	40	3
Mean		163	124	100	37	109	27	91		31	26	20	15	30	103	38	

Table 9. Yield and Percent >10 oz.

Entry	Clone/Variety	Yield >10 oz (Cwt/A)								Percent >10 oz (%)									
		CA	CO	ID	OR	TX	TX	WA	Mean	Rank	CA	CO	ID	OR	TX	TX	WA	Mean	Rank
		TUL	SLV	AB	KLM	SPL	DAL	OTH			TUL	SLV	AB	KLM	SPL	DAL	OTH		
Red/White Flesh																			
1	Dk Red Norland	111	54	88	112	0	70	111	78	3	25	14	22	28	0	31	28	21	3
2	Red LaSoda	192	198	120	119	18	80	137	123	1	31	36	24	20	5	21	23	23	2
3	ATTX98453-6R	224	170		204	19	68	10	116	2	44	30		49	8	15	3	25	1
4	CO00277-2R	187	32	17	95	0	26	43	57	4	35	9	4	17	0	13	10	13	4
5	CO00291-5R	50	16	0	59	0	19	17	23	5	13	4	0	16	0	8	6	7	5
6	OR04131-2	9	0		0	0	0	5	2	6	3	0		0	0	0	2	1	6
Red-Purple/Yellow Flesh								0											
7	ATTX98468-5R/Y	143	143	42	286	0	0	52	95	2	23	29	7	34	0	0	10	15	2
8	CO04021-2R/Y	182	121	29	134	0	20	53	77	3	28	24	5	19	0	4	16	14	3
9	COTX01403-4R/Y	242	120	186	350	0	90	103	156	1	41	26	33	49	0	20	21	27	1
Purple/Purple Flesh																			
10	Purple Majesty	45	19	6	15	1		15	17	1	9	5	1	6	1		3	4	1
11	POR05PG56-1	3	1	7	1	0		0	2	2	1	0	2	0	0		0	0	2
Yellow Flesh																			
12	Yukon Gold	110	94	65	189	23	178	94	108	1	28	27	15	57	15	31	26	28	1
13	ATX03564-1Y/Y	140	66	39	145	1	0	47	63	2	21	16	7	19	0	0	10	11	2
14	CO04013-1W/Y	12	16	6	10	0	2	0	7	4	2	4	1	2	0	0	0	1	4
15	OR04036-5	11	3	11	79	0	4	10	17	3	2	1	3	21	0	1	2	4	3
Mean		111	70	47	120	4	40		63		20	15	10	22	2	11	11	13	

Table 10. Yield and Percent 4 -10 oz.

Entry	Clone/Variety	Yield 4-10 oz (Cwt/A)								Percent 4-10 oz (%)									
		CA	CO	ID	OR	TX	TX	WA		CA	CO	ID	OR	TX	TX	WA			
		TUL	SLV	AB	KLM	SPL	DAL	OTH	Mean Rank	TUL	SLV	AB	KLM	SPL	DAL	OTH	Mean Rank		
Red/White Flesh																			
1	Dk Red Norland	273	262	223	202	54	111	112	177	4	60	67	56	51	34	49	93	59	4
2	Red LaSoda	361	268	191	225	140	199	144	218	1	58	48	39	39	36	53	126	57	5
3	ATTX98453-6R	234	300		129	160	278	150	208	2	46	52		31	70	59	156	69	1
4	CO00277-2R	275	203	232	302	42	95	143	185	3	51	58	60	54	23	47	139	62	2
5	CO00291-5R	242	279	145	218	39	119	90	162	5	64	67	56	59	19	57	98	60	3
6	OR04131-2	195	48		122	3	125	56	91	6	53	17		40	4	50	68	39	6
Red-Purple/Yellow Flesh																			
7	ATTX98468-5R/Y	368	262	350	295	148	154	155	247	1	58	53	61	35	43	48	156	65	1
8	CO04021-2R/Y	378	295	358	290	95	155	92	238	2	59	59	59	40	47	37	79	54	3
9	COTX01403-4R/Y	264	250	286	160	100	264	131	208	3	45	55	51	23	58	61	107	57	2
Purple/Purple Flesh																			
10	Purple Majesty	259	136	152	121	73	0	171	130	1	53	38	34	46	42	0	182	56	1
11	POR05PG56-I	130	24	84	88	34	0	101	66	2	33	8	25	20	20	0	118	32	2
Yellow Flesh																			
12	Yukon Gold	231	212	245	80	121	299	126	188	3	58	60	57	24	70	54	110	62	3
13	ATX03564-IY/Y	379	202	302	287	222	240	169	257	1	58	49	56	38	56	53	154	66	2
14	CO04013-IW/Y	255	125	163	249	36	85	133	149	4	50	33	33	47	11	18	155	49	4
15	OR04036-5	309	161	220	187	47	227	167	188	2	64	50	57	51	39	64	162	70	1
Mean		277	202	227	197	88	157	129	181		54	48	49	40	38	43	127	57	

Table 11. Yield and Percent Culls

Entry	Clone/Variety	Yield Culls (Cwt/A)								Percent Culls (%)									
		CA	CO	ID	OR	TX	TX	WA	Mean	Rank	CA	CO	ID	OR	TX	TX	WA	Mean	Rank
		TUL	SLV	AB	KLM	SPL	DAL	OTH			TUL	SLV	AB	KLM	SPL	DAL	OTH		
Red/White Flesh																			
1	Dk Red Norland	21	2	37	45	28	0	18	21	2	5	0	9	11	18	0	5	7	2
2	Red LaSoda	18	36	142	203	112	34	61	87	1	3	6	29	35	29	9	10	17	1
3	ATTX98453-6R	12	34		51	1	0	16	19	3	2	6		12	0	0	5	4	5
4	CO00277-2R	12	0	14	68	32	0	6	19	4	2	0	4	12	18	0	1	5	3
5	CO00291-5R	13	1	2	46	29	0	13	15	5	3	0	1	12	15	0	5	5	4
6	OR04131-2	5	0		22	12	0	3	7	6	1	0		7	11	0	1	3	6
Red-Purple/Yellow Flesh																			
7	ATTX98468-5R/Y	20	8	48	179	28	4	11	42	3	3	2	8	22	9	1	2	7	3
8	CO04021-2R/Y	24	8	42	254	20	86	17	64	1	4	2	7	35	10	20	5	12	1
9	COTX01403-4R/Y	36	13	48	177	12	13	29	47	2	6	3	8	25	7	3	6	8	2
Purple/Purple Flesh																			
10	Purple Majesty	23	4	23	23	6		6	14	1	5	1	5	9	3		1	4	1
11	POR05PG56-1	7	0	3	22	2		9	7	2	2	0	1	5	1		2	2	2
Yellow Flesh																			
12	Yukon Gold	8	8	26	36	5	25	0	15	3	2	2	6	11	3	4	0	4	4
13	ATX03564-1Y/Y	31	4	56	243	44	16	19	59	1	5	1	10	33	11	4	4	10	1
14	CO04013-1W/Y	5	0	26	38	42	36	2	21	2	1	0	5	7	13	8	0	5	2
15	OR04036-5	6	2	11	43	10	3	9	12	4	1	1	3	12	8	1	2	4	3
Mean		16	8	37	97	25	17	15	30		3	2	7	17	10	4	3	6	

Table 12. Specific Gravity

Entry	Clone/Variety	Specific Gravity						Mean	Rank
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL	WA OTH		
Red/White Flesh									
1	Dk Red Norland	1.071	1.076	1.067	1.055	1.064	1.072	1.067	5
2	Red LaSoda	1.084	1.082	1.070	1.057	1.070	1.070	1.072	3
3	ATTX98453-6R	1.074	1.079		1.075	1.077	1.070	1.075	1
4	CO00277-2R	1.08	1.077	1.068	1.064	1.071	1.070	1.072	4
5	CO00291-5R	1.074	1.084	1.059	1.056	1.066	1.057	1.066	6
6	OR04131-2	1.078	1.084		1.063	1.073	1.075	1.075	2
Red-Purple/Yellow Flesh									
7	ATTX98468-5R/Y	1.076	1.073	1.070	1.069	1.077	1.067	1.072	2
8	CO04021-2R/Y	1.084	1.085	1.074	1.071	1.071	1.063	1.075	1
9	COTX01403-4R/Y	1.077	1.070	1.061	1.053	1.064	1.075	1.067	3
Purple/Purple Flesh									
10	Purple Majesty	1.079	1.085	1.075			1.079	1.080	1
11	POR05PG56-1	1.079	1.083	1.075			1.075	1.078	2
Yellow Flesh									
12	Yukon Gold	1.089	1.089	1.083	1.073	1.077	1.073	1.081	2
13	ATX03564-1Y/Y	1.082	1.080	1.067	1.066	1.073	1.068	1.073	3
14	CO04013-1W/Y	1.098	1.104	1.088	1.089	1.090	1.088	1.093	1
15	OR04036-5	1.069	1.072	1.059	1.058	1.059	1.067	1.064	4
Mean		1.080	1.082	1.070	1.065	1.072	1.071	1.074	

Table 13. Average Tuber Size and Tubers Per Plant

Entry	Clone/Variety	Average Tuber Size (oz)						Tubers/plant					
		CA TUL	ID AB	TX SPL	TX DAL	WA OTH	Mean	CA TUL	ID AB	TX SPL	TX DAL	WA OTH	Mean
Red/White Flesh													
1	Dk Red Norland	6.5	5.9	3.0	5.8	7.7	5.8	6.6	6.0	4.3	2.9	4.5	4.9
2	Red LaSoda	6.9	7.3	3.8	5.8	8.0	6.3	8.1	6.4	8.5	7.4	6.6	7.4
3	ATTX98453-6R	7.4		4.6	5.2	5.3	5.6	6.4		4.2	10.0	5.9	6.6
4	CO00277-2R	6.7	3.8	2.5	4.3	5.4	4.6	8.1	9.6	6.1	5.2	7.0	7.2
5	CO00291-5R	5.2	3.4	2.6	4.2	4.1	3.9	8.7	7.3	6.5	7.9	5.2	7.1
6	OR04131-2	3.8		1.9	4.6	3.4	3.4	9.5		3.9	6.4	6.4	6.5
Red-Purple/Yellow Flesh													
7	ATTX98468-5R/Y	5.7	4.5	2.8	3.2	5.1	4.3	9.7	11.3	9.9	6.7	8.6	9.2
8	CO04021-2R/Y	6.6	4.1	2.7	4.1	5.4	4.6	9.8	12.9	6.5	7.3	4.9	8.3
9	COTX01403-4R/Y	7.8	7.0	3.8	6.4	7.8	6.6	6.7	7.5	3.5	4.8	5.3	5.6
Purple/Purple Flesh													
10	Purple Majesty	4.5	2.8	3.7		4.8	3.9	9.6	14.3	3.9		8.8	9.1
11	POR05PG56-1	3.2	2.4	2.3		3.5	2.9	11.3	12.4	6.4		11.6	10.4
Yellow Flesh													
12	Yukon Gold	6.3	5.1	5.0	6.5	8.0	6.2	6.4	7.6	5.7	5.6	3.9	5.8
13	ATX03564-1Y/Y	5.8	4.5	3.4	3.3	6.7	4.7	10.2	10.6	10.3	9.1	6.3	9.3
14	CO04013-1W/Y	3.6	2.9	2.2	2.4	3.8	3.0	12.6	15.1	13.2	12.7	12.0	13.1
15	OR04036-5	4.2	3.8	2.6	3.5	5.8	4.0	10.3	10.2	6.0	7.6	6.1	8.0
Mean		5.6	4.4	3.1	4.6	5.7	4.6	8.9	10.1	6.6	7.2	6.9	7.9

Table 14. Tuber Uniformity, Fresh Merit Score, Process Merit Score and Process Color

Entry	Clone/Variety	Uniformity (1-5 excellent)			Fresh Merit Score (1-5 best)								Process Merit score (1-5 best)	Process CO/SLV		
		CA	WA	Mean	CA	OR	CO	ID	TX	TX	Mean	Rank		CO/ SLV	fry color (4=darkest) Harvest	45°F
		TUL	OTH		TUL	KLM	SLV	AB	SPL	DAL						
Red/White Flesh																
1	Dk Red Norland	3.3	3.0	3.2	3.6	2.0	2.0	2.5	2.6	3.7	2.7	4	3.0	1.0	1.0	
2	Red LaSoda	3.5	1.0	2.3	3.6	1.5	2.0	1.0	3.5	3.3	2.5	5	3.0	2.0	2.0	
3	ATTX98453-6R	3.8	4.0	3.9	3.6	1.5	1.0		4.4	4.0	2.9	3	1.0	3.0	3.0	
4	CO00277-2R	3.3	3.0	3.2	3.3	1.5	1.0	2.4	2.5	3.5	2.4	6	2.0	2.0	2.0	
5	CO00291-5R	3.4	4.0	3.7	3.3	1.5	3.0	2.7	3.4	3.6	2.9	2	4.0	2.0	2.0	
6	OR04131-2	3.9	4.0	4.0	3.9	3.5	1.0		3.0	4.0	3.1	1	2.0	1.0	2.0	
Red-Purple/Yellow Flesh																
7	ATTX98468-5R/Y	4.0	1.0	2.5	4.1	1.5	4.0	1.8	3.3	3.2	3.0	1	5.0	2.0	2.0	
8	CO04021-2R/Y	3.4	3.0	3.2	3.8	1.0	4.0	3.2	3.0	2.6	2.9	2	5.0	1.0	2.0	
9	COTX01403-4R/Y	3.1	2.0	2.6	3.8	1.0	3.0	2.5	3.1	3.7	2.9	3	1.0	2.0	3.0	
Purple/Purple Flesh																
10	Purple Majesty	3.0	4.0	3.5	3.0	1.0	5.0	1.5	3.3		2.8	2				
11	POR05PG56-1	3.3	3.0	3.2	3.0	3.5	3.0	2.3	3.6		3.1	1				
Yellow Flesh																
12	Yukon Gold	3.8	3.0	3.4	4.4	4.5	5.0	2.3	4.0	4.0	4.0	1	5.0	1.0	1.0	
13	ATX03564-1Y/Y	2.9	1.0	2.0	3.6	1.0	5.0	2.3	2.8	3.0	2.9	3	5.0	2.0	2.0	
14	CO04013-1W/Y	3.9	4.0	4.0	3.9	2.0	3.0	3.0	3.1	1.6	2.8	4	4.0	1.0	1.0	
15	OR04036-5	3.5	3.0	3.3	3.8	4.0	1.0	3.0	2.5	3.5	3.0	2	3.0	1.0	1.0	
Mean		3.5	2.9	3.2	3.6	2.1	2.9	2.3	3.2	3.4	2.9		3.3	1.6	1.8	

Table 15. Tuber Shape and Length Width Ratio

Entry	Clone/Variety	Tuber Shape					Mean	L/W					Mean
		CO SLV	ID AB	TX SPL	TX DAL	WA OTH		CA TUL	CO SLV	ID AB	WA OTH		
Red/White Flesh													
1	Dk Red Norland	2.0	3.2	3.5	3.5	1.0	2.6	1.23	1.14	1.16	1.50	1.3	
2	Red LaSoda	2.0	3.1	3.5	3.5	1.0	2.6	1.17	1.10	1.10	1.30	1.2	
3	ATTX98453-6R	2.0		3.5	3.0	1.0	2.4	1.10	1.15		1.30	1.2	
4	CO00277-2R	1.0	1.1	1.5	2.0	1.0	1.3	1.06	1.09	1.08	1.40	1.2	
5	CO00291-5R	1.0	1.0	1.5	2.0	1.0	1.3	1.19	1.07	1.11	1.40	1.2	
6	OR04131-2	1.0		1.5	1.5	1.0	1.3	1.10	1.09		1.30	1.2	
Red-Purple/Yellow Flesh													
7	ATTX98468-5R/Y	1.0	2.3	3.5	2.5	1.0	2.1	1.09	1.10	1.02	1.40	1.2	
8	CO04021-2R/Y	3.0	3.1	2.0	3.5	3.0	2.9	1.51	1.45	1.31	1.70	1.5	
9	COTX01403-4R/Y	2.0	2.8	3.5	3.5	1.0	2.6	1.28	1.21	1.25	1.40	1.3	
Purple/Purple Flesh													
10	Purple Majesty	2.0	3.5	3.5		2.7	2.9	1.93	1.39	1.59	1.60	1.6	
11	POR05PG56-1	1.0	2.1	3.5		2.0	2.2	1.59	1.33	1.61	1.70	1.6	
Yellow Flesh													
12	Yukon Gold	2.0	2.5	3.5	3.5	1.0	2.5	1.18	1.25	1.16	1.40	1.2	
13	ATX03564-1Y/Y	2.0	2.9	3.5	3.5	3.0	3.0	1.54	1.69	1.39	1.60	1.6	
14	CO04013-1W/Y	1.0	1.9	2.0	2.0	1.0	1.6	1.10	1.12	1.20	1.40	1.2	
15	OR04036-5	2.0	2.9	3.7	3.5	2.7	3.0	1.61	1.38	1.50	1.60	1.5	
Mean			2.5	2.9	2.9	1.6	2.3	1.3	1.2	1.3	1.47	1.32	

Table 16. Skin and Flesh Color

Entry	Clone/Variety	Skin Color (1 - 5 dark)							Flesh Color (1 - 5 dark)						
		CA	CO	TX	TX	ID	WA		CA	CO	ID	OR	TX	TX	
		TUL	SLV	SPL	DAL	AB	OTH	Mean	TUL	SLV	AB	KLM	SPL	DAL	Mean
Red/White Flesh															
1	Dk Red Norland	3.5	2.0	2.5	3.5	2.6	3.0	2.8	1.6	1.0	1.0	1.0	1.0	1.0	1.1
2	Red LaSoda	2.6	1.0	3.4	3.0	2.5	3.0	2.6	1.8	1.0	1.0	1.0	1.0	1.0	1.1
3	ATTX98453-6R	3.4	2.0	2.5	3.5		3.0	2.9	1.8	1.0		1.0	1.0	1.0	1.2
4	CO00277-2R	4.0	3.0	3.5	3.6	3.5	4.0	3.6	1.4	1.0	1.0	1.0	1.0	1.0	1.1
5	CO00291-5R	4.1	4.0	4.2	3.8	4.8	5.0	4.3	1.6	1.0	1.0	1.0	1.0	1.0	1.1
6	OR04131-2	4.0	3.0	4.0	3.8		4.0	3.8	1.5	1.0		1.0	1.0	1.0	1.1
Red-Purple/Yellow Flesh															
7	ATTX98468-5R/Y	2.5	1.0	3.0	3.6	2.0	2.0	2.4	2.8	3.0	3.0	2.0	3.1	3.0	2.8
8	CO04021-2R/Y	3.9	4.0	3.5	3.5	2.8	2.0	3.3	3.0	3.0	3.7	3.0	3.0	3.5	3.2
9	COTX01403-4R/Y	2.8	1.0	3.5	3.8	2.3	2.0	2.6	2.4	3.0	2.8	2.0	3.5	3.0	2.8
Purple/Purple Flesh															
10	Purple Majesty	4.5	5.0	4.7		5.0	5.0	4.8	4.3	4.0	5.0	5.0	3.6		4.4
11	POR05PG56-1	3.4	5.0	4.5		4.0	4.0	4.2	3.3	3.0	3.3	3.0	2.5		3.0
Yellow Flesh															
12	Yukon Gold	3.5	1.0	1.0	2.0	1.8	2.0	1.9	2.9	2.0	3.0	3.0	3.0	3.0	2.8
13	ATX03564-1Y/Y	3.5	1.0	1.0	1.0	1.9	1.0	1.6	2.6	3.0	2.5	2.0	1.5	1.5	2.2
14	CO04013-1W/Y	3.6	1.0	1.0	2.0	2.1	3.0	2.1	3.2	3.0	3.8	3.0	3.5	3.5	3.3
15	OR04036-5	3.4	1.0	1.0	1.0	1.8	2.0	1.7	2.9	3.0	3.8	3.0	2.5	3.5	3.1
Mean		3.5	2.3	2.9	2.9	2.8	3.0	3.0	2.5	2.2	2.7	2.1	2.1	2.1	2.3

Table 17. Eye Depth and External Defects

Entry	Clone/Variety	TX TX					Eye Depth	External Defects																							
		SPR	DAL	CA	AB	WA		TX TX					Growth Cracks	TX TX					Knobs	TX TX			Shatter Bruise	TX TX				Scab			
								CO	SPR	DAL	AB	WA		CO	SPR	DAL	AB	WA		SPR	DAL	WA		SPR	DAL	AB	WA				
Red/White Flesh																															
1	Dk Red Norland	4.0	3.0	2.8	3.0	3.0	3.2	5.0	5.0	5.0	4.5	4.0	4.7	5.0	5.0	5.0	4.3	5.0	4.9	5.0	5.0	4.0	4.7	5.0	5.0	4.0	5.0	5.0	4.0	5.0	4.8
2	Red LaSoda	2.0	2.0	2.3	1.3	1.0	1.7	3.0	5.0	5.0	4.0	4.0	4.2	5.0	5.0	5.0	4.0	5.0	4.8	5.0	5.0	4.0	4.7	5.0	5.0	3.5	4.7			4.6	
3	ATTX98453-6R	4.0	4.0	4.0		3.0	3.8	2.0	5.0	5.0		4.0	4.0	5.0	5.0	5.0		5.0	5.0	5.0	2.0	4.0	5.0	5.0		5.0			5.0	5.0	
4	CO00277-2R	4.0	4.0	3.5	3.8	2.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.7	5.0	5.0	2.8	5.0			4.4		
5	CO00291-5R	4.0	4.0	3.6	4.0	4.0	3.9	4.0	5.0	5.0	4.8	5.0	4.8	5.0	5.0	5.0	4.8	5.0	5.0	5.0	4.0	4.7	5.0	5.0	5.0	5.0			5.0	5.0	
6	OR04131-2	4.0	4.0	3.6		3.0	3.7	5.0	5.0	5.0		4.0	4.8	5.0	5.0	5.0		5.0	5.0	5.0	4.0	4.7	5.0	5.0		4.3			4.8		
Red-Purple/Yellow Flesh																															
7	ATTX98468-5R/Y	4.0	3.8	3.1	3.3	2.0	3.2	4.0	5.0	5.0	5.0	4.7	4.7	5.0	5.0	5.0	4.8	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0			4.8	
8	CO04021-2R/Y	4.0	4.0	3.8	4.3	4.0	4.0	5.0	---	5.0	4.5	5.0	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.7	5.0	5.0	4.0	5.0	5.0			4.8	
9	COTX01403-4R/Y	4.0	3.5	3.8	3.5	3.0	3.6	4.0	5.0	5.0	4.5	4.5	4.6	5.0	5.0	5.0	4.3	5.0	4.9	5.0	5.0	4.0	4.7	5.0	5.0	3.5	5.0			4.6	
Purple/Purple Flesh																															
10	Purple Majesty	4.0		3.3	3.8	3.0	3.5	5.0	5.0		5.0	5.0	5.0	5.0	5.0		4.5	5.0	4.9	5.0		5.0	5.0	5.0	5.0	2.0	5.0			4.0	
11	POR05PG56-1	4.0		3.8	3.8	3.0	3.6	5.0	5.0		4.8	5.0	4.9	5.0	5.0		5.0	5.0	5.0	5.0		5.0		5.0	5.0	3.8	4.3			4.4	
Yellow Flesh																															
12	Yukon Gold	4.0	4.0	3.8	3.8	3.0	3.7	4.0	5.0	5.0	4.8	5.0	4.8	5.0	5.0	5.0	4.5	5.0	4.9	5.0	5.0	4.0	4.7	5.0	5.0	1.3	5.0			4.1	
13	ATX03564-1Y/Y	4.0	4.0	3.8	3.8	4.0	3.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.8	5.0	4.6	5.0	5.0	5.0	5.0	5.0	5.0	2.3	5.0			4.3	
14	CO04013-1W/Y	4.0	4.0	3.9	3.8	4.0	3.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.5	5.0			4.4	
15	OR04036-5	4.0	4.0	3.1	4.0	4.0	3.8	5.0	5.0	5.0	5.0	4.7	4.9	5.0	5.0	5.0	4.8	5.0	5.0	5.0	3.0	4.3	5.0	5.0	3.0	5.0	3.3	5.0			4.6
Mean		3.9	3.7	3.5	3.5	3.1	3.5	4.4	5.0	5.0	4.8	4.7	4.7	5.0	5.0	5.0	4.5	5.0	4.9	5.0	5.0	4.1	4.7	5.0	5.0	3.2	4.9			4.6	

Table 18. Internal Defects

Entry	Clone/Variety	Percent Incidence (%) ¹														Blackspot Bruise				Zebra Chip ²										
		TX TX							HH	TX TX							IBS	TX TX				KLM %	I-5=none				BB	% Zebra chipped	% Zebra fresh	
		CO	SPR	DAL	AB	CA	KLM	WA		SPR	DAL	AB	CA	KLM	WA	SPR		DAL	CO	WA	BB									
Red/White Flesh																														
1	Dk Red Norland	0	0	0	3	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	13	5.0	5.0	4.9	5.0	5.0	0%	0%
2	Red LaSoda	21	0	0	0	38	15	13	12	0	0	3	5	0	2	0	0	0	0	0	0	10	5.0	5.0	4.9	5.0	5.0	7%	0%	
3	ATTX98453-6R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	10	5.0	5.0	5.0	5.0	5.0	0%	0%	
4	CO00277-2R	0	0	0	3	10	0	6	3	0	0	0	0	0	0	3	0	0	0	5	2	20	5.0	5.0	5.0	5.0	5.0	0%	0%	
5	CO00291-5R	0	0	3	0	5	0	5	2	0	0	0	0	0	0	0	0	0	3	0	1	10	5.0	5.0	4.2	5.0	4.8	0%	0%	
6	OR04131-2	0	0	3	0	3	0	0	1	0	0	0	0	0	0	0	0	0	3	15	5	13	5.0	5.0	5.0	5.0	5.0	3%	0%	
Red-Purple/Yellow Flesh																														
7	ATTX98468-5R/Y	0	0	0	0	5	0	10	2	0	0	0	0	0	0	0	0	0	3	3	1	10	5.0	5.0	5.0	5.0	5.0	0%	0%	
8	CO04021-2R/Y	0	0	0	0	13	0	0	2	0	8	0	0	0	2	0	0	0	13	10	5	20	5.0	5.0	4.7	5.0	4.9	0%	10%	
9	COTX01403-4R/Y	4	0	0	0	38	0	10	7	0	0	0	0	0	0	0	0	0	3	0	1	10	5.0	5.0	4.5	5.0	4.9	0%	0%	
Purple/Purple Flesh																														
10	Purple Majesty	0	0	0	8	0	0	0	1	0	0	0	0	0	0	0	0	10	0	3	0	5.0	5.0	5.0	5.0	5.0	0%	0%		
11	POR05PG56-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	5.0	5.0	5.0	5.0	0%	0%		
Yellow Flesh																														
12	Yukon Gold	0	8	5	0	13	3	0	4	3	3	0	0	0	1	0	0	0	0	0	0	0	5.0	5.0	5.0	5.0	5.0	0%	0%	
13	ATX03564-1Y/Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	5.0	5.0	4.8	5.0	5.0	0%	0%	
14	CO04013-1W/Y	2	0	0	38	53	17	0	16	43	100	8	0	0	30	0	0	0	0	10	2	10	5.0	5.0	4.4	5.0	4.9	0%	0%	
15	OR04036-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	20	5.0	5.0	4.4	5.0	4.9	0%	0%	
Mean		2	1	1	3	13	3	3	3	3	9	1	0	0	2	0	0	0	3	3	1	11	5.0	5.0	4.8	5.0	4.9	1%	1%	

^{1/} Percent based on 10 cut tubers averaged from 7 sites.

^{2/} Zebra chip data collected Spring Lake, TX.

Table 19. Disease Evaluation

Entry	Clone/Variety	Corvallis, Oregon			Aberdeen, Idaho		Tulelake, CA
		L. Blight			Vert. ⁴	Early blight ⁴	Vert. ⁵
		Foliar ¹	Tuber ²	AUDPC ³			
Red/White Flesh							
1	Dk Red Norland	9	10	1345	2.0	2.5	8.5
2	Red LaSoda	9	0	1400	2.8	2.8	4.5
3	ATTX98453-6R	4	0	235			4.8
4	CO00277-2R	6	0	459	2.5	3.0	6.0
5	CO00291-5R	8	0	1023	3.5	3.3	2.5
6	OR04131-2	8	0	1165			6.3
Red-Purple/Yellow Flesh							
7	ATTX98468-5R/Y	6	0	910	3.8	3.5	5.5
8	CO04021-2R/Y	9	0	1400	2.8	3.1	4.3
9	COTX01403-4R/Y	9	5	1389	2.5	2.5	7.5
Purple/Purple Flesh							
10	Purple Majesty	9	0	1384	2.0	2.5	7.5
11	POR05PG56-1	9	5	1337	2.0	2.8	8.3
Yellow Flesh							
12	Yukon Gold	9	3	1397	2.3	3.1	8.3
13	ATX03564-1Y/Y	9	3	1395	3.0	3.0	3.3
14	CO04013-1W/Y	9	0	1397	3.0	2.9	3.5
15	OR04036-5	9	0	1390	2.5	2.6	7.3
Mean		8	2	1175	2.7	2.9	5.9

^{1/}Ratings are averages for 4 reps: 1=no foliar injury; 2=1-5%; 3=5-10%; 4=10-20%; 5=20-40%; 6=40-60%; 7=60-75%; 8=75-90%; 9= \geq 90-100% injury. Taken 10/13/09

^{2/} % of late blight infected tubers at harvest (10 randomly selected tubers).

^{3/} AUDPC = Area Under the Disease Progress Curve.

^{4/} Disease rating (1-5 best).

^{5/}Vert wilt rating 0-9, 9 worst 90-100% plants show symptoms taken on 8/21/2012

Table 20. Culinary Tuber Quality

		Washington Culinary Quality ¹					
Entry	Clone/Variety	Boiling	Baking	Micro	Total	Rank	Overall Rank
Red/White Flesh							
1	Dk Red Norland	17.2	20.1	17.4	54.7	4	7
2	Red LaSoda	17.5	18.8	16.7	53.0	5	10
3	ATTX98453-6R	19.6	18.4	17.6	55.6	3	6
4	CO00277-2R	19.3	17.5	19.8	56.5	1	3
5	CO00291-5R	17.8	17.2	16.3	51.3	6	13
6	OR04131-2	21.3	18.3	16.8	56.4	2	4
Red-Purple/Yellow Flesh							
7	ATTX98468-5R/Y	15.8	18.0	15.9	49.8	2	14
8	CO04021-2R/Y	15.8	17.0	16.7	49.5	3	15
9	COTX01403-4R/Y	16.2	18.8	16.7	51.6	1	12
Purple/Purple Flesh							
10	Purple Majesty	19.2	17.6	17.1	53.8	2	9
11	POR05PG56-1	19.7	19.0	18.4	57.1	1	2
Yellow Flesh							
12	Yukon Gold	21.7	19.6	17.5	58.8	1	1
13	ATX03564-1Y/Y	19.5	18.6	17.6	55.7	2	5
14	CO04013-1W/Y	13.8	19.1	19.5	52.5	4	11
15	OR04036-5	17.3	18.5	18.7	54.5	3	8
Mean		18.1	18.4	17.5	54.1		

^{1/} Higher score = better quality, maximum = 25 per test. Knowles & Fuller, Pullman, WA.

Table 21. Tuber Composition

Entry	Clone/Variety	Aberdeen, Idaho					
		Solids	Protein ¹	Dextrose ²	Sucrose ²	Vitamin C ³	TGA ⁴
Red/White Flesh							
1	Dk Red Norland	18.5	5.4	0.036	0.148	24.8	3.0
2	Red LaSoda	17.5	5.5	0.120	0.122	27.0	3.9
3	ATTX98453-6R	---	---	---	---	---	---
4	CO00277-2R	19.1	5.7	0.049	0.156	24.4	4.5
5	CO00291-5R	16.5	4.6	0.080	0.159	17.3	5.4
6	OR04131-2	---	---	---	---	---	---
Red-Purple/Yellow Flesh							
7	ATTX98468-5R/Y	18.1	4.5	0.081	0.154	18.9	3.6
8	CO04021-2R/Y	19.7	4.71	0.039	0.156	16.7	1.8
9	COTX01403-4R/Y	18.3	5.5	0.044	0.218	28.8	4.1
Purple/Purple Flesh							
10	Purple Majesty	20.3	3.7	0.007	0.174	23.1	7.5
11	POR05PG56-1	19.5	5.3	0.022	0.222	19.9	12.6
Yellow Flesh							
12	Yukon Gold	21.7	5.4	0.031	0.204	34.1	4.9
13	ATX03564-1Y/Y	18.5	4.3	0.083	0.163	25.4	4.2
14	CO04013-1W/Y	22.3	5.88	0.015	0.183	17.2	3.3
15	OR04036-5	16.8	4.2	0.053	0.217	24.3	5.5
Mean		19.0	5.0	0.1	0.2	23.2	4.9

^{1/} % Dry Weight Basis^{2/} % Fresh Weight Basis^{3/} % Fresh Weight Basis (mg/100g)^{4/} % Fresh Weight Basis (mg/100g), using Lenepe as check with reading of 43.7

Table 22. Entry Location Comments

Entry	Clone/Variety	Aberdeen, ID	Klamath Falls, OR
Red/White Flesh			
1	Dk Red Norland	shattered	Pale, Big, Poor
2	Red LaSoda	deep ends	Big, lumpy, GC, low skin defects
3	ATTX98453-6R		Pale x 4, lenticels x 4, sk bronzing x 4, SB, drop
4	CO00277-2R	nice red, but dirty, ATS, scab	Severe Rhizoc, skinning x 4, bronzing x 4, high cullage x 4, drop
5	CO00291-5R	round, dark red, skinned, with attached stolons	Skinning x 4, SB x 4, bronzing x 4, drop
6	OR04131-2		Typy x 4, smooth x 4, low skin defects
Red-Purple/Yellow Flesh			
7	ATTX98468-5R/Y	large, light red, skinned, ATS, deep ends, misshaped	Big x 4, pale color x 4, MS x 4, R. LaSoda look-alike, Drop
8	CO04021-2R/Y	long, flat, misshaped	Big x 4, green-ends x 4, flat x 4, high skin defects x 4, drop
9	COTX01403-4R/Y	large, lt red, brw, scab, too big, not attractive	One big bucket of culls x 4
Purple/Purple Flesh			
10	Purple Majesty	nonuniform	junky skin x 4, 80% cullage at packing shed, drop
11	POR05PG56-1	tiny	Typy x 4, smooth x 4, low skin defects
Yellow Flesh			
12	Yukon Gold	typical, scab	Big, smooth, typy, low skin defects
13	ATX03564-1Y/Y	sprouted, tear drop shape	Sprouts x 4, pears x 4, junky skin x 4, drop x 4
14	CO04013-1W/Y	small oval with pink eyes, non-uniform, ATS	Skin russeting x 4, lenticels x 4, dingy color x 4, sprouts x 4, drop
15	OR04036-5	oval buff, mishaped	Smooth x 4, typy x 4, low skin defects

Table 23. Entry Location Comments Continued

Entry Clone/Variety	Springlake, TX	Dalhart, TX
Red/White Flesh		
1 Dk Red Norland	faded color+, poor internal, poor skin finish, drop	
2 Red LaSoda	heavy set, deep eyes, rough, heat sprouts	deep eyes, rough
3 ATTX98453-6R	smooth, BOT, release, feathering, nice, shallow eyes, light skin color	nice, yield+
4 CO00277-2R	small potato, knobs, good color, drop, silver scurf	light set, nice flesh
5 CO00291-5R	beautiful color and skin, stem attachment, small+, , stem end discoloration, drop	
6 OR04131-2	small potato, light set, smooth, nice skin finish, drop	small, nice+, oversized not ugly
Red-Purple/Yellow Flesh		
7 ATTX98468-5R/Y	light skin, feathering+, dough	low yield, nice shape and flesh
8 CO04021-2R/Y	small, smooth skin	nice flesh, lots of culls, , variable size, pointed, poor shape
9 COTX01403-4R/Y	nice flesh, light skin,	BOT, eye brows, , nice size, shape, and flesh
Purple/Purple Flesh		
10 Purple Majesty	alligator hide, lighter flesh, poor skin finish, nice shape, yield	
11 POR05PG56-1	white and purple flesh, poor internals, nice shape, heat sprouts, road map	
Yellow Flesh		
12 Yukon Gold	low yield++	very nice, BOT++
13 ATX03564-1Y/Y	poor skin finish, drop++, heart shaped	lots of smalls, some pointed, light flesh, poor shape, pear shaped
14 CO04013-1W/Y	heat sprouts, small potato, heavy set, poor internals, drop+	very poor internals+++ , drop
15 OR04036-5	nice shape and flesh color, low yield+	small, nice skin and flesh

Table 24. Entry Location Comments Continued

Entry Clone/Variety	Othello, WA	Tulelake, CA	Center, CO
Red/White Flesh			
1 Dk Red Norland	A bit flat, larger.		
2 Red LaSoda	Deep eyes, rough shape.	Skinning	rough
3 ATTX98453-6R	Nice medium red, range in size, skin set an issue?		deep eyes
4 CO00277-2R	Deep red, large range in size.	Skinning, not uniform	
5 CO00291-5R	Poor skin set, sticky stolons**.	Skinning, dark, fair	
6 OR04131-2	Good skin set, deep red, some scab.	Good, skinning	
Red-Purple/Yellow Flesh			
7 ATTX98468-5R/Y	Poor skin set, deep eyes, rough, sticky stolons** - DISCARD		flat, light red
8 CO04021-2R/Y	Large, curves, irregular shapes.	Shatter	
9 COTX01403-4R/Y	Large, flat, rough shape - DISCARD	Good, skinning	light red, deep eyes
Purple/Purple Flesh			
10 Purple Majesty	Deep purple, size and shape mostly uniform.		
11 POR05PG56-1	Nice purple, some powdery scab, mostly uniform shape and size.	Skinning, lumpy	
Yellow Flesh			
12 Yukon Gold	Larger, variable shape.		
13 ATX03564-1Y/Y	Spotty prescab, large pears - DISCARD.	Pear shape	pointed, internal spots
14 CO04013-1W/Y	Looks like a small Yukon Gold, uniform size and shape.	Good	
15 OR04036-5	Spotty russeting, prescab.		

** The term "sticky stolons" refers to tubers that stay attached to the plant during harvest. This may not be a problem if plants are vine killed or fully matured prior to harvest, however, it generally indicates late maturation.

Table 25. Summary Means

Entry	Clone/Variety	Year	Yield Summary ¹					Tuber Characteristics		Quality			
			<4 oz.	4-6 oz.	6-10 oz.	>10 oz.	Culls	Total	% 4-10 oz.	Tuber Size oz./tuber	Spec. grav.	Culinary quality ²	Fresh Merit ³
Red/White Flesh													
1	Dk Red Norland	***	54	61	102	78	18	346	59	5.8	1.067	54.7	2.7
2	Red LaSoda	***	63	75	135	123	61	517	57	6.3	1.072	53.0	2.5
3	ATTX98453-6R	2	72	77	113	116	16	428	69	5.6	1.075	55.6	2.9
4	CO00277-2R	1	103	83	99	57	6	378	62	4.6	1.072	56.5	2.4
5	CO00291-5R	2	96	74	68	23	13	300	60	3.9	1.066	51.3	2.9
6	OR04131-2	2	155	64	36	2	3	258	39	3.4	1.075	56.4	3.1
Red-Purple/Yellow Flesh													
7	ATTX98468-5R/Y	1	128	123	122	95	11	527	65	4.3	1.072	49.8	3.0
8	CO04021-2R/Y	1	101	97	131	77	17	490	54	4.6	1.075	49.5	2.9
9	COTX01403-4R/Y	2	50	67	134	156	29	484	57	6.6	1.067	51.6	2.9
Purple/Purple Flesh													
10	Purple Majesty	***	172	99	56	17	6	369	56	3.9	1.080	53.8	2.8
11	POR05PG56-1	2	266	73	14	2	9	353	32	2.9	1.078	57.1	3.1
Yellow Flesh													
12	Yukon Gold	***	46	74	110	108	0	371	62	6.2	1.081	58.8	4.0
13	ATX03564-1Y/Y	1	126	148	118	63	19	528	66	4.7	1.073	55.7	2.9
14	CO04013-1W/Y	1	286	112	41	7	2	465	49	3.0	1.093	52.5	2.8
15	OR04036-5	2	115	114	79	17	9	348	70	4.0	1.064	54.5	3.0
Mean			122	89	91	63	15	411	57	4.6	1.074	54.1	2.9

¹Mean weight fractions do not equal total average because some locations do not take measurements for all criteria.

²Higher score = better quality, maximum = 75 total for bake, boil and microwave. Knowles & Fuller, Pullman, WA.

³Scale = 1-5 best

Table 26. 2-Year Summary of Graduating Entries

Entry	Clone/Variety	Year	Yield Summary ¹					Tuber Characteristics		Quality			
			<4 oz.	4-6 oz.	6-10 oz.	>10 oz.	Culls	Total	% 4-10 oz.	Tuber Size oz./tuber	Spec. grav.	Culinary quality ²	Fresh Merit ³
Red/White Flesh													
1	Dk Red Norland	***	54	61	102	78	18	346	59	5.8	1.067	54.7	2.7
2	Red LaSoda	***	63	75	135	123	61	517	57	6.3	1.072	53.0	2.5
3	ATTX98453-6R	2	72	77	113	116	16	428	69	5.6	1.075	55.6	2.9
5	CO00291-5R	2	96	74	68	23	13	300	60	3.9	1.066	51.3	2.9
6	OR04131-2	2	155	64	36	2	3	258	39	3.4	1.075	56.4	3.1
Red-Purple/Yellow Flesh													
9	COTX01403-4R/Y	2	50	67	134	156	29	484	57	6.6	1.067	51.6	2.9
Purple/Purple Flesh													
10	Purple Majesty	***	172	99	56	17	6	369	56	3.9	1.080	53.8	2.8
11	POR05PG56-1	2	266	73	14	2	9	353	32	2.9	1.078	57.1	3.1
Yellow Flesh													
12	Yukon Gold	***	46	74	110	108	0	371	62	6.2	1.081	58.8	4.0
15	OR04036-5	2	115	114	79	17	9	348	70	4.0	1.064	54.5	3.0
Mean			109	78	85	64	16	377	56	4.9	1.072	54.7	3.0

¹Mean weight fractions do not equal total average because some locations do not take measurements for all criteria.

² Higher score = better quality, maximum = 75 total for bake, boil and microwave. Knowles & Fuller, Pullman, WA.

³ Scale = 1-5 best